



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,078	03/24/2000	Franco Travostino	2204/A34	1845

2101 7590 02/24/2004
BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER

OPIE, GEORGE L

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 02/24/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/536,078

Examiner

George L. Opie

Applicant(s)

Travostino et al.

Art Unit

2126

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondenc address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 5 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ☐ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ☐ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ☐ is/are objected to.
- 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ☐ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ☐ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ☐.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☐ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ☐.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). ☐.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☒ Other: Text doc for USP5,983,274

Art Unit: 2126

DETAILED ACTION

This Office Action is responsive to Amendment A, in which claims 1, 9, 18, 21 and 29 were amended.

The Office acknowledges Applicant's inclusion of an electronic copy of the amendment on a 3½inch floppy disk, and the Office would like to thank Applicant for submitting the amendment in electronic form to expedite its processing.

1. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*. Consistent with Office procedure, the U.S. Patents corresponding to the *text documents* are also included with this action.

2. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobbins et al. (U.S. Patent 5,509,123) in view of Hyder et al. (U.S. Patent 5,983,274).

As to claim 1, Dobbins teaches "autonomous router objects", p2 49 – p3 6 that have "functions provided by a base resource object class which define the methods and data for configuration and control"

a "forwarding engine object is provided at each network interface", p3 10-27 and "each forwarding engine is to provide the reception, processing, and forwarding of network layer packets" for handling the necessary function calls to direct the administration of the data transmissions, p8 et seq.

Dobbins does not explicitly disclose the additional limitations detailed below.

Art Unit: 2126

Hyder teaches an "Application Programming Interface (API) is a set of subroutines provided by one software component so that relevant services may be uniformly accessed" by other (diverse) devices, p7 40-47, and Hyder then goes on to describe an "integrating component 102", pp8 et seq. and interface operations that component 102 provides as an API. Clearly, the software component 102 is comprised of a set of subroutines so that relevant services may be executed in response to control input from other components; in other words, integrating component 102 functions as the claimed API.

It would have been obvious to combine Hyder's teachings with Dobbins because communications compatibility is critical for networking, and the software integration interface would facilitate a linking means so that "any software component may cooperate with and communicate to another software component that processes the network data", Hyder abstract.

As to claim 2, Dobbins teaches the "tree" structure, p19 21-33 for managing the objects.

As to claims 3-4, Dobbins (pp9-10) teaches the memory management for storing and maintaining object data.

As to claims 5-7, Dobbins (p18 43-52) teaches the read/write limitations for controlling the object access.

As to claim 8, Dobbins (p3 10-27) teaches the objects execute on a network router device.

As to claim 9, see the discussion of claim 1 supra, with the additional hierarchical tree of objects taught by Dobbins p19 21-33 that controls execution of the forwarding plane.

As to claims 10-11, Dobbins (pp5-6) teaches the object-oriented programming principles that include, inter alia, the instantiation of an object from a class structure as recited.

As to claims 12-17, note the rejections of claims 2-8 above.

As to claim 18, note the rejection of claim 9 above. Claim 18 is the same as claim 9, except claim 18 is a computer program product claim and claim 9 is an apparatus claim.

As to claims 19-20, see the rejections of claims 10-11 respectively.

Art Unit: 2126

As to claim 21, see the claim 1 discussion supra. The limitations in claim 21 are the same as claim 1, but for the recitation of a processor, which would be inherent in the Dobbins system as discussed supra.

As to claims 22-28, note the rejections of claims 2-8 above.

As to claim 29, see the claim 1 discussion supra. The limitations in claim 29 are functionally equivalent to the claim 1 limitations, with the addition of a "managed object class", p2 49 – p3 6 that receives management data for managing the forwarding plane.

As to claim 30, see the claim 2 discussion supra.

As to claim 31, Dobbins (pp5-6) teaches the object-oriented operations.

As to claim 32, Dobbins teaches the control data received from the control plane that is part of the network device, p6 17-52.

As to claim 33, note the rejection of claim 8 above.

4. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure. Each reference disclosed below is relevant to one or more of the Applicant's claimed invention.

U.S. Patent No. 6,442,612 to Hugosson et al. which teaches the network agent for controlling packet processing;

U.S. Patent No. 6,324,583 to Stevens which teaches the I/O component to facilitate network object communication; and,

U.S. Patent No. 6,148,349 to Chow et al. which teaches the I/O mapping for interconnecting object protocols.

5. Response to Applicant's Arguments:

Applicant's remarks accompanying Amendment A, filed 5 December 2003, have been considered but are deemed to be moot in view of the new grounds of rejection necessitated by the amendments to the claims.

The Office acknowledges Applicant's inclusion of an electronic copy of the amendment on a 3½inch floppy disk, and the Office would like to thank Applicant for submitting the amendment in electronic form to expedite its processing.

6. THIS ACTION IS MADE FINAL.

Art Unit: 2126

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. Request for copy of Applicant's response on floppy disk:

Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered – your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

8. Contact Information:


PTO Policy for Facsimile Submissions:

- ☐ AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- ☐ OFFICIAL faxes must be signed and sent to (703) 746-7239.
- ☐ NON OFFICIAL faxes should be sent to (703) 746-7240.

All OFFICIAL faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the Office, e.g., Finance Division for fee charging, etc.

Art Unit: 2126

- ☐ All responses sent by U.S. Mail should be mailed to:
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450
- ☐ Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses directly to the Examiner.
- ☐ Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(703) 305-9600**.
- ☐ Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (703) 308-9120 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100



Please mark a plus sign (+) inside this box → ☐

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paper Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/536,078
	Filing Date	03/24/2000
	First Named Inventor	Travostino
	Group Art Unit	2126
	Examiner Name	Opie
Total Number of Pages in This Submission	Attorney Docket Number	2204/A34 120-209
	Nortel Ref:	BA0348

RECEIVED
DEC 09 2003
Technology Center 2100

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s) and letter	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Extension of Time Request	<input checked="" type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Return receipt postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s)	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	Please charge any deficiency or credit any overpayment to Deposit Account No. 502569.
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	David A. Dagg, Reg. No. 37,809 Steubing McGuinness & Manaras LLP
Signature	
Date	December 1, 2003

CERTIFICATE OF MAILING OR FACSIMILE			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, Alexandria, VA 33212 or being facsimile transmitted to the United States Patent and Trademark Office at number (703) on this date: December 1, 2003			
Type or printed name	Carol Ann Mahoney		
Signature		Date	December 1, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.